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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/690,748 | 10/23/2003 | Takeshi Kurimoto | D-1529 | 5783 |
| 32628 | 7590 | 01/13/2006 | EXAMINER | |
| KANESAKA BERNER AND PARTNERS LLP SUITE 300, 1700 DIAGONAL RD ALEXANDRIA, VA 22314-2848 | | | BROWN, DREW J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3616 | |

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/690,748 | Applicant(s) KURIMOTO ET AL. | |
| | Examiner Drew J. Brown | Art Unit 3616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Makoto (JP 2000-085515).

Makoto, according to Figure 1, discloses an airbag having an occupant side surface (left end of airbag in Fig. 1) facing the occupant and an opposite side surface (right end of airbag in Fig. 1) opposite to the occupant side surface when the airbag is inflated, where the airbag has an interior partitioned into an upper chamber 12 and a lower chamber 11. A gas generator 20 is disposed in the airbag for generating gas to inflate the airbag, and a gas distributor is disposed in the airbag and partly surrounds the gas generator. The gas distributor has a discharge port for discharging gas from the gas generator into the upper and lower chambers so as to expand the airbag, wherein the gas distributor has a size greater than that of the gas generator to form a clearance for a gas passage outside the gas generator so that the gas flows between at least the upper chamber and the lower chamber through the clearance. A connecting line (line separating chambers 11, 12, and 14) has a first section (horizontal portion of line between upper chamber 12 and lower chamber 11) and a second section (vertical portion of line between chamber 14 and upper 12 and lower 11 chambers) extending continuously from the first section to define at least the upper chamber, the lower chamber, and the gas distributor, wherein the connecting line connects the occupant side surface and the opposite side surface of the airbag.

Additionally, according to Figure 3 of Makoto, an airbag is disclosed having an occupant side surface (left end of airbag in Fig. 1) facing the occupant and an opposite side surface (right end of airbag in Fig. 1) opposite to the occupant side surface when the airbag is inflated, where the airbag has an interior partitioned into an upper chamber 12 and a lower chamber 11. A gas

Art Unit: 3616

generator 20 is disposed in the airbag for generating gas to inflate the airbag, and a gas distributor is disposed in the airbag and partly surrounds the gas generator. The gas distributor has a discharge port for discharging gas from the gas generator into the upper and lower chambers so as to expand the airbag, wherein the gas distributor has a size greater than that of the gas generator to form a clearance for a gas passage outside the gas generator so that the gas flows between at least the upper chamber and the lower chamber through the clearance. A connecting line (line separating chambers 11, 12, and 14) has a first section (horizontal portion of line between upper chamber 12 and lower chamber 11) and a second section (diagonal portion of line between chamber 13 and upper chamber 12) extending continuously from the first section to define at least the upper chamber, the lower chamber, and the gas distributor, wherein the connecting line connects the occupant side surface and the opposite side surface of the airbag.

With respect to claim 9 and Figure 3 of Makoto, the first section separates the upper and lower chambers, and the second section (diagonal portion of line between chamber 13 and upper chamber 12) separates the gas distributor from the upper chamber.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Acker et al. (U.S. Pat. No. 6,349,964 B1).

Makoto discloses the claimed airbag as discussed above with reference to Figure 1, and also discloses that the airbag includes a housing chamber (portion of airbag where gas generator 20 along with ends 21 and 22 are located) as the gas distributor (part of the housing contains the connecting line and the discharge ports) between the second section of the connecting line and a rear side rim of the airbag for retaining the gas generator, where the discharge port includes a lower discharge port that communicates with the lower chamber at the lower side of the housing

Art Unit: 3616

chamber and an upper discharge port that communicates with the upper chamber at the upper side of the housing chamber. In addition, Makoto discloses that the connecting line has a lower part situated close to the rear side rim of the airbag. Makoto, however, does not disclose that the lower discharge port is larger than that of the upper discharge port.

Acker et al. does disclose that the lower discharge ports 44 are larger than the upper discharge ports 42 (column 4, lines 64-67 & column 5, lines 1-2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Makoto with the teachings of Acker et al. to have larger lower discharge ports so the lower chamber has a higher pressure applied to the pelvic region of the occupant than the upper chamber, which has a lower pressure because it is applied to the more-sensitive thoracic region of the occupant.

5. Claims 3, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Acker et al., and further in view of Yokoyama (U.S. Pat. No. 6,231,069 B1).

Makoto, as modified by Acker et al., discloses the claimed airbag as discussed above as well as having a rod-shaped gas generator disposed vertically in the housing chamber, but does not disclose that the gas generator has a gas port facing downwardly at one end.

Yokoyama does disclose a wall 17 that directs the gas from the gas generator downwardly. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Makoto as modified by Acker et al. with the teachings of Yokoyama to utilize a wall at the lower end of the housing chamber attached to the gas generator in order to direct the gas downwardly into the lower chamber to fill the center of the lower chamber first. This will create a more even distribution of gas throughout the lower chamber, which improves the overall deployment of the airbag and the safety of the occupant.

Makoto, as modified by Acker et al., also discloses that the housing chamber is disposed between the upper chamber and the rear side rim of the airbag. The airbag is also partitioned by the connecting line first section connecting the occupant side surface and the opposite side surface, where the connecting line first section extends to the connecting line second section. The connecting line first section also extends from a front side rim of the airbag to an end portion

Art Unit: 3616

near the rear ride rim, and the connecting line second section extends from the end portion of the connecting line first section upwardly to end near an upper side rim of the airbag.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Acker et al., and further in view of Yokoyama and Sunabashiri (U.S. Pat. No. 6,561,539 B1).

The combination of Makoto, Acker et al., and Yokoyama discloses the claimed invention as discussed above but does not disclose that a partitioning line is disposed above the connecting line first section so as to form a middle chamber between the upper chamber and the lower chamber.

Sunabashiri does disclose a partitioning line 8 that that forms a middle chamber between the upper chamber and the lower chamber. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the combination of Makoto in view of the teachings of Sunabashiri to have a partitioning line disposed above the connecting line first portion in order further control the inflation of the airbag to provide optimal protection for the occupant.

Response to Arguments

7. Applicant's arguments filed 11/28/05 have been fully considered but they are not persuasive.

In response to applicant's argument that Makoto includes additional structure, such as the lines forming rear duct 13, is not required by applicant's invention, it must be noted that Makoto discloses the invention as claimed. The fact that it discloses the lines forming rear duct 13 not claimed is irrelevant.

In response to the argument that Makoto does not have "a discharge port formed of a connecting line extending substantially linearly," the examiner disagrees because the horizontal portion of the connecting line (portion of connecting line separating upper chamber 12 and lower chamber 11) forms the upper and lower discharge ports.

In response to the argument that Makoto does not have the gas distributor and the connecting line, the examiner disagrees because Makoto does have a gas distributor and a connecting line (line separating chambers 11, 12, and 14). While the applicant discloses that the

Art Unit: 3616

claimed gas distributor contains a connecting line and discharge ports, the invention of Makoto discloses the same.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown
Examiner
Art Unit 3616

DJB



DAVID R. DUNN
PRIMARY EXAMINER